

Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Elkhorn Creek

Waterbody Segment at a Glance:

County: Montgomery
Nearby Cities: Montgomery City
Length of impairment: 2 miles
Pollutant: Biochemical Oxygen Demand (BOD),
Volatile Suspended Solids (VSS)
Source: Montgomery City
Wastewater Treatment Plant
Proposed for addition to the 2002 303(d) list for BOD and VSS. Also see Habitat Loss sheet.



State map showing location of watershed

TMDL Priority Ranking: Low

Description of the Problem

Beneficial uses of Elkhorn Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption

Use that is impaired

- Protection of Warm Water Aquatic Life

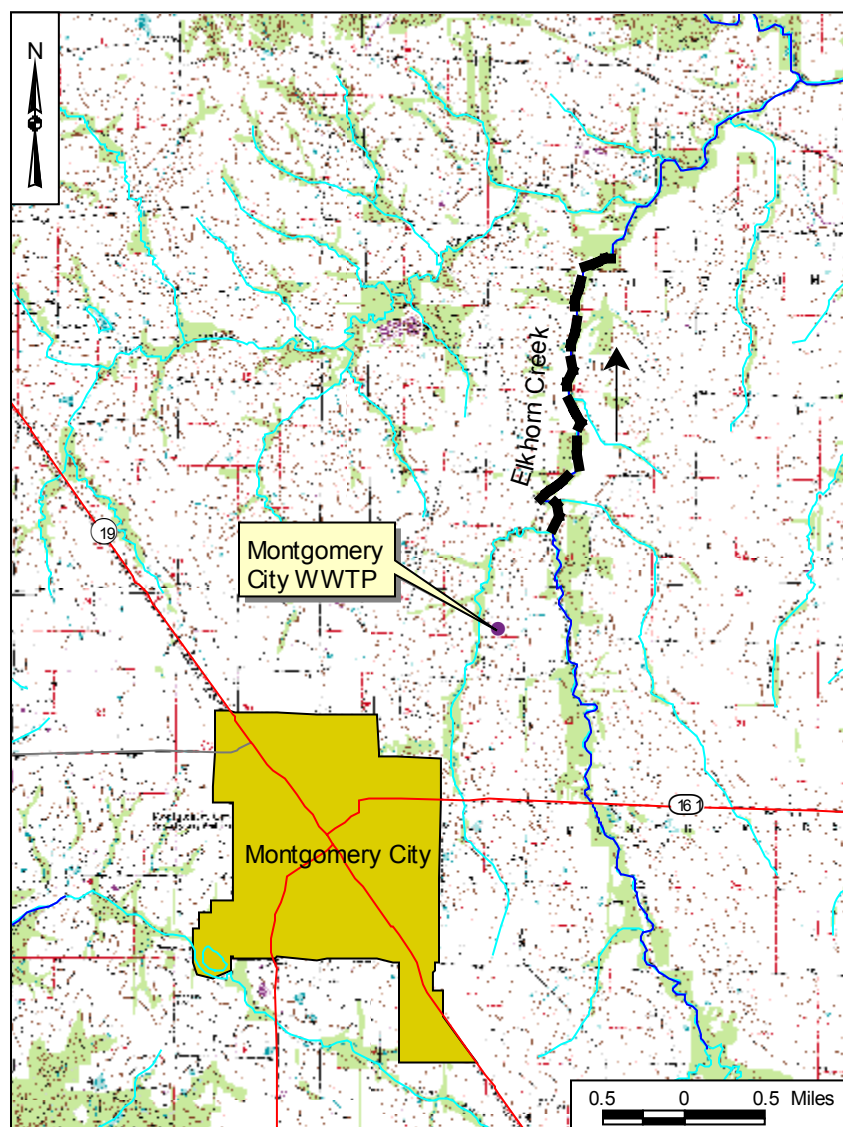
Standards that apply

- The Missouri Water Quality Standard (WQS), found in 10 CSR 20-7.031 Table A, for dissolved oxygen (related to BOD) in streams is 5.0 mg/L (milligrams per liter or parts per million).
- Standards for Volatile Suspended Solids (VSS) may be found in the general criteria section of the WQS, 10 CSR 20-7.031(3)(A) and (C) where it states:
 - Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
 - Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

This stream shows deposition of sewage solids and low levels of dissolved oxygen (a stream measurement that relates to Biochemical Oxygen Demand (BOD)) downstream from the Montgomery City wastewater treatment plant (WWTP). Wastewater high in BOD reduces the amount of dissolved oxygen in the stream's water. Most aquatic organisms require high levels of oxygen to survive. In addition, VSS (suspended algae and sewage sludge) can settle onto the bottom of a stream and smother

natural substrates (materials in the streambed), aquatic invertebrate animals (like crayfish and water insects) and fish eggs. Like all wastewater discharges in Missouri, the Montgomery City WWTP has to meet the requirements of a discharge permit issued by Missouri Department of Natural Resources. Changes will be made to the discharge permit that will improve the quality of the wastewater discharge. This, in turn, will improve the water quality in Elkhorn Creek.

Impaired Portion of Elkhorn Creek, Montgomery County, Missouri



--- Impaired Segment → Direction of flow

For more information call or write:

Missouri Department of Natural Resources, Water Pollution Control Program
P.O. Box 176, Jefferson City, MO 65102-0176
1-800-361-4827 or (573) 751-1300 office or (573) 751-9396 fax
Program Home Page: www.dnr.state.mo.us/wpscd/wpcp/index.html